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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/002,746	11/02/2001	Amab Das	29250-002099/US	3832

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER

NGUYEN, THUAN T

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/002,746

Applicant(s)

DAS ET AL.

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Response to After Final Appeal Brief

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Remark

2. Claims 2-3 were canceled in the amendment dated 2/2/04, and claims 1 and 4-15 are pending for reconsideration.
3. Applicant's arguments with respect to claims 1, and 4-15 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, and 4-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (U.S. Patent No. 6,067,458) in view of Kobylinski et al. (U.S. Patent 6,044,272).

Regarding claim 1, Chen discloses a method for transmitting channel quality information in a wireless communication system with at least a base station and at least a mobile station (Fig. 2), the method comprising varying a rate for reporting channel quality information from a mobile station to a base station as a function of the presence or absence of a reception of a transmission

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at the mobile station (see col. 6/lines 10-48 for varying rate information exchange between mobile station and base station, in idle time or absence of a reception of a data transmission at the mobile station, rate is communicated at the eighth rate, and higher rate is used when voice or data communicating between these two components; and col. 13/lines 48-65 as mobile station communicates to base station & col. 14/lines 32-42 for channel quality monitoring and control).

Applicants argue that Chen has different approach in report channel quality; however, in the same field of signal strength detection and reporting channel quality in wireless systems, Kobylinski teaches the same technique of report channel quality from mobile stations to base stations at a first rate in the absence of a reception of data transmission from the base station, and then, upon detection of a reception of data transmission from the base station, the mobile station reports channel quality information at a second rate for a predetermined duration (refer to col. 4/line 38 to col. 5/line 11, as at first the mobile reports the channel quality in SACCH during its idle time slot, meaning no communication or no transmission data; and then at later time, as the base station receives data, the base station instructs the mobile to tune to a different channel the DVCC for further reports and communication—the second measurement order). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen's system with Kobylinski's teaching technique of having channel reports from mobile station at one channel rate, and then, at a later time, tuning to a different channel rate as required.

(Claims 2 and 3 were canceled).

As for claim 4, in view of claim 1, Chen discloses a plurality of rates over a prescribed time period after the detection of reception of a data transmission, particularly, ranging from a

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first rate set for transmitting speech data up to a second rate set of 64 kbps for exchanging voice and other data (col. 6/lines 29-48 & col. 13/lines 48-51).

As for claim 5, in view of claim 4, Chen discloses a plurality of rates can be transmitted or reported at different ones of the plurality of rates on a reverse link from the mobile station to the base station during different ones of the plurality of time intervals (Figs. 1A- F shows an example within one time interval of 20ms, and col. 2/line 53 to col. 3/line 3).

As for claim 6, in view of claim 1, Chen further discloses that the second rate is faster than the first rate, i.e., the second rate either at the first rate set or at the second rate set is faster than the first rate at idle time (or at the eighth rate, see col. 6/lines 18-48).

As for claim 7, in view of claim 1, Chen further discloses that the base station determines the channel quality collected from the mobile station for deriving a transmission format for a next transmission (col. 13/line 55 to col. 14/line 20).

As for claim 8, in further view of claim 7, Chen further includes within the transmission format one or more parameters selected from the group consisting of modulation format, number of codes, and transmission rate (col. 12/line 22 to col. 13/line 40).

As for claim 9, in view of claim 6, Chen further addresses the calculation an amount of redundancy needed for a retransmission of a previous transmission by using a routine 300 in recalculating the necessary step whether to use the previous transmission or not (Fig. 7, and col. 11/lines 40-63 & col. 13/lines 20-33 for recalled or previously stored power transmission control setting).

As for claim 10, in view of claim 1, Chen further discloses wherein the channel quality information comprises a transmission rate calculated by the mobile station based on one or more

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channel conditions (col. 12/line 63 to col. 13/line 47 for more additional conditions can be collected by the base stations).

As for claims 11-12, these claims for same limitations are rejected for the reasons given in the scope of claims 1-10 as already disclosed above.

As for claims 13-15, Kobylinski further shows the step of varying a rate for reporting channel quality information from a mobile station to a base station as a function of the number of base stations that the mobile station is communicating with (refer to col. 4/line 64 to col. 5/line 11) as relevant and distinguished base stations can be determined for better handoff, in this scenario); for claim 14, refer to col. 4/line 38 to col. 5/line 11, as at first the mobile reports the channel quality in SACCH during its idle time slot, meaning no communication or no transmission data (with its current base station); and then at later time, as the base station receives data, the base station instructs the mobile to tune to a different channel the DVCC for further reports and communication—the second measurement order for the process of communication to other candidate base stations based on the received signal strength values; (for claim 15) and the rate for second channel is faster than the rate for the first channel, since the first channel is SACCH or Slow associated control channel.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Chen, ManJunath et al., Bhaskar et al., and Persson et al. (PTO-892 attached) disclose systems related to report channel quality and RSSI.

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7. **Any response to this action should be mailed to:**
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the New Central Fax number:
(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895.

The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony T. Nguyen
Primary Examiner
Art Unit 2618

TTN
April 11, 2007